University of Alberta

Lands Reserved for Indians: The Issue of Accountability

by

Ralph C. Makokis ©

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Arts

Department of Earth and Atmospheric Sciences

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled *Lands Reserved for Indians: The Issue of Accountability* by Ralph C. Makokis in partial fulfillment of the requirements for the degree of Master of Arts.

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Abstract

Under the terms of the constitution of Canada, the federal government is responsible for "Indians and Lands Reserved for Indians." Two examples of how the government discharges that responsibility are described in this work. The first takes up the issue of information that is necessary for sound fiscal accountability in the context of the Department of Indian and Northern Affairs' accountability to both Parliament and Indian Bands. The second example is a review of a specific project, the Environmental Issues Inventory, that the department initiated in 1990 as a result of a legislative and judicial requirement to review environmental hazards on Indian Reserve land. A common issue in both discussions is that accountability requires a sound information base, and such an information base must be elabaorate enough to account for the complexities involved in self-government. In both examples, the lack of a systematic multi-resource data-base system is implicated in deficiencies in accountability.

TABLE OF CONTENTS

Chapter I. Introduction 1

Information Systems and Fiscal Accountability 2

Accountability in Environmental Concerns 3

The Need for Information Systems About Land 4

References 4

Chapter II. Social and Economic Accountability to Indians and Lands Reserved For Indians: The Need for Comprehensive and Culturally Appropriate Accounting Systems 6

DIAND's Present Slipshod Accounting System 8

The Larger Context: Internal Colonialism 14

The Nature of An Accounting System For Indian Band Survival 18

The Predicament of Indian Bands Experiencing "Devolution" 18

Methodology: Establishing Social and Economic Accounts 22

Questions From the Field: Information Needs 23

The Scope of the Information Needs 32

The Organizational Logic of First Nations Accounting Systems 36

Summary 40

References 41

Chapter III. The Environmental Issues Inventory Project: Issues for the Future 44

Introduction 44

Federal Responsibilities For Environmental Audits and Remediation 45

The Phases of the Environmental Issues Inventory 48

Summary of Federal Responsibilities to be Addressed by the EII 50

The Issue of Research Standards in Environmental Audits 52

The Clarity of Criteria for Environmental Audits: Some Examples 55

Examples of How INAC Completed the Environmental Issues Inventory . . 58

The Identification of Sites and Issues in Phase I 58

Phase II--Data Collection and Site Assessment 60

The Scope of Phase II 60

Comparison of Typical Phase II Reports 62

Process 62

Content 63

Summary Evaluation of Sample Phase II Reports 65

Phases III and IV: Technical Site Assessment and Remediation 66

Report Content and Structure 66

An Example of Report Comprehensiveness of A Single Issue:

Water Quality 68

Evaluative Issues 71

Comprehensiveness 71

Program Characterisitcs 71

Discussion 72

Where Do We Go Now? 73

Conclusion 78

References 79

Chapter IV. Conclusions 82

Issues of Accountability Demonstrate The Need for Information Systems . . 82

A Case For Aboriginally-Controlled Information Systems 84

LIST OF TABLES

Table 2.1. Example of Range of Issues Discussed at Band Council Level 26

Table 2-2. Categories of Information Needs 27

CHAPTER I

Introduction

The two papers that form the basis for this work are explorations, in two different contexts, of the idea of accountability in the relationship between the federal government and the several hundred First Nations of Canada. That relationship is complex but its history has everything to do with control of, and identity with, land.

Its origins are in the historical period between first contact and the early 1830s, when First Nations peoples maintained community autonomy and integrity as holders of the balance of military power between competing Euro-American interests, and producers and traders in the main industry in Canada (see, e.g., Dickason, 1992; Tobias, 1991; Wilson & Urion, 1995). Between 1817 and the early 1880s, as more and more land was alienated from Indian control, containment of Indians on reserves became the cornerstone of government policy. The British imperial government maintained responsibility for the relationship between Indians and government until 1860, when responsibility for dealing with First Nations peoples was legislatively given to the government of the United Canadas. The *British North America Act* of 1867 (Section 91, Subsection 24) vested exclusive responsibility for "Indians and Lands Reserved for Indians" in the Canadian federal government. The legislation that Canada subsequently enacted to discharge that responsibility gave legal sanction to divesting effective legal control, from Indian people, of their own lives and land. A piece-meal program of "devolution" to "self-government" was begun in the 1970s and

continues. One of the central discussions at present is whether or not self-government is a right that is granted to First Nations governments by the federal government, or whether it is an inherent right of peoples who never relinquished it.

Administrative and legal relationships between the federal government and Indians are changing very rapidly under this banner of self-government. There are complex issues of accountability during this state of change, and the two papers in this work are examples of two areas of ambiguity in accountability.

Information Systems and Fiscal Accountability

According to the Auditor General of Canada in his report to parliament in 1991, the federal policy of "devolution" of control of Indian affairs to Indian bands has been so poorly implemented that questions of accountability must be raised, not just in terms of fiscal accountability to parliament but in terms of accountability to Indian people. Accountability in general terms is founded on particular and specific information, and a major shortcoming has been the failure to develop information systems. Chapter II is a paper that was published in *Canadian Journal of Native Education* (Makokis, 1993) about that area of accountability. In the paper, the scope of Indian governments' legislative authority is compared to the concerns which chiefs and councils must deal with on a day-to-day basis, in order to illustrate the range of Indian government information needs. The argument is put forward that the present situation, expressed in terms of "devolution," is one of the continuation of containment and control of Indians and Indian land. There is an immediate need for

the creation of comprehensive information systems, controlled and maintained by First Nations people, in order for there to be substantive change. Those systems must be organized in terms that are culturally appropriate.

Accountability in Environmental Concerns

Chapter III is an article that has been submitted to *Canadian Native Studies Review*, and is an example of the manner in which the federal government seeks to discharge a responsibility that court decisions and environmental legislation have confirmed: the federal government is responsible for gathering and evaluating information about the environment on lands reserved for Indians. In 1990, the Department of Indian and Northern Affairs instituted the Environmental Issues Inventory project as a means of discharging that responsibility, and then supported the passage of legislation in 1995 that "devolved" much of that responsibility for environmental monitoring to the bands themselves.

The scope of the project was awesome. Were it to have been successful, complete audits of environmental hazards would have been completed on many thousands of individual parcels of reserved land during a three- or four-year period beginning in 1990. The paper in this work is a summary description of some typical reports generated in that project in the Alberta region, in order to provide an indication of the extent to which the federal government has accounted for its responsibility in environmental auditing of lands reserved for Indians.

The Need for Information Systems About Land

The two papers illustrate some compelling needs. Policy and action that relate to decisions about "Indians and Lands Reserved for Indians" have to be based on information of many different orders. The papers illustrate the present state of organization of that information and give an indication of the quality and validity of the information that exists. The two areas of information needs that are illustrated in these two papers form the basis for an argument that information systems about "Indians and Lands Reserved for Indians" must be developed. Furthermore, those information systems must be organized in such a way that First Nations governments can control and maintain them, and the organizational principles upon which they are based must be consistent with First Nations principles of organization: they must be meaningful to the people who use and control them.

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CHAPTER II

Social and Economic Accountability to Indians and Lands Reserved For Indians: The Need for Comprehensive and Culturally Appropriate Accounting Systems[1]

During 1990-91 just about $4 billion was spent on basic services for Indian people, $2.6 of it allocated to the Department of Indian Affairs and Northern Development (DIAND). "A large portion" (Auditor General of Canada [AGC], 1991, p. 17) of that money is in the form of grants to Indian bands. The report of the Auditor General of Canada (AGC, 1991) is a starting point for this discussion of lack of accountability, lack of explicit policy, and lack of structure or established process for the legislatively-mandated responsibility for dealing with the concerns and interests of Indian people. That lack has a political consequence: these omissions have the effect of continuing a federal government Indian policy of containment and control, inimical to development.

The lack of accountability is a symptom of a larger problem. This paper is a discussion of the categories of social and economic accounting information that Indian bands need to have access to if, at minimum, they are going to be accountable to their own people in any better way than DIAND's slipshod way. DIAND's minimum is no standard, however, and the first part of this paper is a demonstration that there is at

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1 A version of this paper has been published. Makokis 1993. *Canadian Journal of Native Education*. 20:3-17.

present no effective accounting system. The Auditor General's Report to Parliament of 1991 graphically illustrates this need.

The second part of the paper is an attempt to say what is reflected in the present poor accounting system: the system is consistent with a model of macrosystemic social, political, and economic relationships oriented toward control and containment of Indian people, even though the rhetoric of DIAND's justification for its poor accounting system is that its own lack of accounting reflects a movement toward "devolution"--that is, control of Indian affairs is supposed to be, according to the Department, being assumed by Indian bands. No current DIAND model for assumption of band control includes an information accounting component, and this lack is consistent with its lack of explicit policy direction. In fact, DIAND relinquishes little control; the bands administer funds which in many cases have been committed and allocated by others, usually agents of the federal government.

The first two sections of this paper are meant to illustrate why Indian bands need multi-resource, facility, personnel, financial, and equipment accounting systems. The third part of the paper is an attempt to define the nature of the systems that are needed in the current social, political, and developmental context. Reference is made to an on-going project in Central Alberta, which has been the focus of my own work in geography.

DIAND's Present Slipshod Accounting System

In keeping with a policy of "devolution," which DIAND says began as early as 1965, more than two thirds of the money spent on "essential services" for Indian people is transferred by DIAND to the bands, which then administer the expenditures. The practice of transferring the money to the bands for administration of expenditures has accelerated, and around 400 of the 600 or so Indian bands in Canada are responsible for administering such funds in the areas of health care, education, housing, and other services.

It has to be pointed out that the money that is transferred to bands is not largesse, nor is there discretion as to how it is to be used. It is money that has been committed, as obligation. It meets commitments made by the Crown under Treaty and it meets obligations to third parties for services and supplies that in many cases the bands themselves have not been party to incurring, but which have been "negotiated" for on the bands' behalf by functionaries of the Department.

The problems with this arrangement are horrendous. The Auditor General's report says

> The Department has not been able to provide information to Parliament on how well the money was used. In the past, this Office [Minister of Supply and Services] and the Standing Committee on Public Accounts have expressed concern about the issue of the Department's accountability to Parliament for the use of these funds. ... This Office reported that the planning and implementation of additional transfer of responsibility for program delivery had not been well thought out. ... The Public Accounts Committee noted that expenditures by Indian bands were not subject to appropriate accountability processes. The Committee observed that the First Nations had voiced concerns about the inflexible conditions they were required to meet under existing contribution agreements. (AGC, 1991, pp. 17-18)

The Department has responded by "initiating negotiations with central agencies to develop an accountability process that would be acceptable to both First Nations and the government" (p. 18).

The same report goes on to illustrate a major dilemma for the continuing daily administration of Indian affairs: it is not just a question of responsibility for administration of money, it is the fact that a policy vacuum exists which immobilizes Indian people and Indian government. It may be difficult for someone who has not had first hand experience in the context of federal government relationships with First Nations to understand the extent of this problem, but it is so clearly demonstrated in this report of the Ministry of Supply and Services, that these illustrative summary statements are quoted in full, with emphasis added as appropriate:

> 1.14 In 1986 this Office reported that the Department's mandate was not clear; specifically, the **Department was not sure whether it was still accountable for ensuring social and economic gains to native people, or was now responsible simply for ensuring an equitable distribution of financial support** as native groups pursued their own objectives. The Office noted that **there was a great difference between these two orientations, with different measures of accountability for each**. In 1988, the Office observed that it had been reporting for over 20 years on the Department's inability to assure Parliament that funds provided to bands, through contribution agreements and other funding arrangements, were used for their intended purposes.
>
> 1.15 Case studies in this year's Report illustrate a partnership between the Department and some bands that works. The accountability framework that seems to serve the band can also serve funding agencies. The leaders of these bands feel accountable in both directions—to funding agencies and to band members—and they report their results to both constituencies.

1.16 An important question is what type of accountability is appropriate for funding arrangements, when more than 70 percent of the Department's funds are devolved to Indian bands or tribal councils for self-administration? **Who is ultimately responsible, in an environment of devolution, for meeting the needs of First Nations in health, education and housing.**

1.17 **Whatever the fiscal and funding arrangements in the future, an appropriate accountability framework will be needed. The resolution of the long-standing dilemma of reconciling the Department's accountability to Parliament with the funding arrangements for First Nations is overdue.** (AGC, 1991, pp. 17-18)

AGC provides its own illustrations of the social cost of the dilemma. One of the first social costs has to do with accountability and trust. Though DIAND is accountable to Parliament for the almost $2 billion it transfers to bands, the Department "does not have assurance in all cases that [the money is] used for the purpose intended or managed with due regard for economy, efficiency and effectiveness" (AGC, 1991, p. 325). In other words, there is no structural or policy requirement for accountability. That works both ways: DIAND and the bands have a relationship that is typified by misinformation; lack of information or poorly organized information; abysmal communication; and finally, mutual distrust.

The work does not get done and the setting of priorities is haphazard. Three areas illustrate this particularly well: housing, provision for re-enrolled members, and the handling of claims. DIAND has a policy of providing housing assistance because Indians resident on reserves are not eligible for the assistance in housing provided to others, and because the *Indian Act* does not allow reserve land to be used as security for mortgages. DIAND cannot make clear whether or not its housing policy reflects a

"benefit" or a "right" (AGC, 1991, p. 325), but the question may be moot because the Department "estimates that it would cost up to $840 million to clear the existing backlog of 10,000 to 11,000 housing units" and the Department "has no strategic plan to resolve this critical problem" (p. 325).

DIAND projects a cost of over $2 billion dollars to meet essential services and treaty obligations for Indians re-enrolled under the terms of Bill C-31, but any plans it may have to meet those obligations are unclear.

Claims that DIAND has mismanaged Indian assets are a major problem: 600 such claims have been formally documented and presented over the past 20 years, but more than half of those claims are still being processed; the Department has not accounted for $50 million it has provided to Indian associations and bands for research on specific claims (p. 325), and has attempted to deflect, somehow, any discredit for lack of accountability onto Indian people themselves.

The Auditor General's Report to Parliament in 1991 illustrates the situation in strong summary terms in the section labelled "General Background" at the end of the Report. Though the following quotation is extensive, its clear articulation of an important problem warrants its inclusion:

> 14.8 The Department of Indian Affairs and Northern Development (DIAND) administers, in whole or in part, 46 statutes to fulfil the lawful obligations of the federal government to aboriginal people arising from treaties, the Indian Act and other legislation. DIAND is responsible for administering Indian reserve lands and providing for the delivery of basic services to status Indian and Inuit communities. DIAND also negotiates the settlement of accepted claims relating to aboriginal title not dealt with by treaty or other means and to non-fulfilment of government obligations.

14.9 Between the years 1981 and 1989, the status Indian population grew at a rate three times faster than the Canadian population as a whole. This has resulted in an Indian population that is very young. In 1989, the status Indian population was approximately 466,000. Slightly more than 50 percent were under 25 years of age, compared to less than 36 percent of the Canadian population as a whole. This growth has placed heavy demands on Indian communities and the federal government to provide education, housing, employment, and other services.

14.10 At the time of our audit, there were 601 registered Indian bands. Almost two thirds had a population of less than 500. The remoteness and small size of many Indian reserves drastically limit the opportunities available to Indians and affect the nature and cost of services provided to them.

14.11 Status Indians, as Canadian citizens, benefit from all universally available federal programs, such as Family Allowance, Old Age Security and Unemployment Insurance. In addition to these programs, status Indians who live on reserve (60 percent of the total Indian population) receive federal services such as education, health and dental care, social assistance, housing, community infrastructure and economic development. Furthermore, status Indians living on reserves generally do not pay income tax, provincial sales tax, property tax, or goods and services tax.

14.12 ...
[The amount budgeted for expenditures for aboriginal people] for 1991 to 1992 is over $4 billion. Indian needs will continue to grow over the years as a result of demographic and other factors. Although we are not expressing an opinion on the appropriateness of this amount, it is significant by any measure. Nevertheless, the standard of living in most native communities remains considerably lower than the national average.

14.13 Both Indians and federal government acknowledge the need to define the relationship between the "First Nations" and Canadian society in terms of constitutional rights and aboriginal title. Ongoing complex negotiations are anticipated for a number of years. However, important initiatives are urgently required if improvements in socio-economic conditions are to be met with assurance that government funds are used effectively.

Audit Objectives and Scope

14.14 The objectives and scope of our audit were to examine and assess:

- whether there is appropriate accountability for the $2.6 billion spent by DIAND on the Indian and Inuit Affairs program;
- the adequacy of DIAND's procedures for providing support to individuals and bands in obtaining adequate housing;
- the adequacy of the planning for, and implementation of, the 1985 amendments of the Indian Act (Bill C-31);
- the adequacy of the specific claims process and results; and
- the extent to which DIAND verifies the completeness and accuracy of production reports by third-party leaseholders of Indian oil and gas resources.

Accountability

14.15 DIAND spent $2.6 billion in 1990-91 on providing services to Indian people. For a number of years, the Department has been transferring the administrative authority and responsibility for the delivery of services to Indian bands and tribal councils. Funding administered by Indians in 1989-90 amounted to $1.9 billion, which was 72 percent of total DIAND program expenditures. This reflects the willingness of the government and Indian groups to encourage Indian autonomy.

...

14.16 DIAND uses various vehicles to transfer funds to Indian bands and tribal councils for delivering services. Funds are appropriated by Parliament to achieve specified program results, while Indian communities are being provided with flexibility to redefine programs and reallocate resources. Alternative Funding Arrangements and Flexible Transfer Payments are significant vehicles used by DIAND to provide bands or tribal councils with lump-sum payments to deliver Indian programs. The bands can design and implement their own policies in such areas as welfare, education and economic development.

14.17 We acknowledge the concept of allowing bands to modify federally funded programs so that they will be more appropriate to their communities' needs. However, under certain legislation currently in place, the Department still retains ultimate accountability for the way in which these funds are spent and the results they produce.

14.18 According to DIAND, the Minister's accountability to Parliament remains intact for these funding arrangements with bands or tribal councils. They are not unconditional transfer payments. They have a specific purpose, which must be accounted for.

Observations and Recommendations

DIAND lacks accountability framework

14.19 In prior years, we commented on DIAND's accountability regime and observed that improvements were needed. While eligible Indians should be provided with the level and quality of services to which they are entitled, every effort should be made to ensure that the funds devoted to this purpose are used effectively. This requires a proper accountability framework within the Indian community and adequate controls in DIAND to provide assurance of fairness and due regard for economy, efficiency and effectiveness. We found that DIAND's funding arrangements with bands and tribal councils still lack this accountability framework. In some cases, DIAND does not know how well bands are exercising their stewardship over public funds and has no procedures to ensure that bands are accountable for the spending of such funds.

14.20 DIAND should improve its accountability framework to include, as a minimum, the following requirements in administering payments to bands and tribal councils:

— timely submission of annual audited financial statements by bands and tribal councils;
— timely submission of activity and financial reports with acceptance of monitoring as a criterion of eligibility; and
— evaluation of funding arrangements respecting the quality and level of services provided to band members.

(AGC, 1991, pp. 329 ff.)

In summary, the accountability issue is a symptom of a much larger issue. The Auditor General claims that DIAND does not meet its responsibility in accountability; DIAND in turn claims that that problem arises because of "devolution" of control of money to Indian bands.

The Larger Context: Internal Colonialism

The present macrosystemic social, political, and economic relationships between Indian people and non-Indian society and government have been the subject

of considerable analysis. Probably the most widely accepted model in recent years has been the model of internal colonialism. It is sometimes used as an ambiguous concept that only restates relationships of dependency, but it has been given a more precise definition by van den Berghe (1978), in his description of indigenous people in Peru. These are the four conditions that together identify and describe internal colonialism, as Van den Berghe has described them.

1. Rule of one ethnic group (or coalition of such groups) over other such groups living within the continuous boundaries of a single state.
2. Territorial separation of the subordinate ethnic groups into `homelands,' `native reserves,' and the like, with land-tenure rights distinct from those applicable to members of the dominant group.
3. Presence of an internal government within a government especially created to rule the subject peoples, with a special legal status ascribed to the subordinate groups. Typically, members of the dominant group are incorporated into the state as individuals while members of the subordinate groups have a corporate group status that takes precedence over their individual status.
4. Relations of economic inequality in which subject peoples are relegated to positions of dependency and inferiority in the division of labour and the relations of production.

(from Van den Berghe, 1978)

The position of Canadian Indians with respect to the Canadian government is aptly described using the internal colonial model but the federal policy is one of devolution, which appears to be directed toward changing that macro relationship. The evidence that DIAND has provided is in the transfer of funds to bands for administration. How effectively that transfer provides for control, for changing the colonial relationship, may be seen by looking at the areas in which Indian bands have discretion.

Band councils have in fact the power to create by-laws in the administration of their affairs. That may appear to allow for discretion and judgement in making

development decisions. The areas in which band councils are empowered to create by-laws are circumscribed: health and contagious diseases; traffic regulation; law and order provisions; regulation about domestic and wild animals on the reserve; local works: roads and fences, etc.; zoning for activities and structures; land allotments and specific land uses; the regulation of public events such as races and "amusements"; regulation of peddlers and hawkers; and by-laws about trespass on the reserve. Infractions of by-laws are restricted to fine limits of $100 and 30 days imprisonment. Hawley (1984) says

> the powers conferred by Section 81 [of the *Indian Act* which describes the by-laws mentioned above] are first of all, powers to regulate, and to regulate only `administrative statutes.' In other words, a band council has, in this area, the same sort of legislative powers as those possessed by the council of a municipal corporation. The power to give effect to regulations cannot extend beyond these administrative statutes; they are accessory and nothing more. (Hawley, 1984)

Comparing the scope of the by-laws that Indian bands are allowed to create with the scope of those which municipalities are allowed to create (see, e.g., the Province of British Columbia's *Municipal Act*, 1976), shows that Hawley's comparison does not favour the bands.

The allowance to create by-laws is a power vested in the Minister, not the band. By-laws have to be forwarded to Ottawa within four days of having been passed and if a by-law is not disallowed by the Minister, it comes into effect 40 days after having been forwarded (DIAND, 1991a).

"Advanced development" is the ambiguous criterion that the Minister is supposed to use in deciding whether a band may have yet more discretion over its

affairs. At the Minister's discretion, having decided that a band has reached "an advanced state of development," the council--still subject to Ministerial approval—can tax reserve and band land, license businesses, and disburse money raised by tax and license.

Another power given to bands that is supposed to be consistent with devolution is the power to determine band membership, but the conditions under which they can do so are clearly spelled out in the Section 10 of *The Indian Act*. That provision was made in 1987, and by 1990, "39% of the bands controlled their membership lists, comprising approximately 188,000 people" (AGC, 1991, Section 14.42). The Auditor General notes that

> the transfer ... means that DIAND no longer maintains, or has access to, a single comprehensive source of data on band membership and on-reserve populations. DIAND has acknowledged some bands are not able to maintain current, accurate and complete band lists. We noted that DIAND has not provided these bands with guidelines and training for adequate data maintenance. Nor does it have a quality control system in place to monitor the quality of the residency data in the Indian Regions.
>
> ...
>
> The Department should, in collaboration with Indian bands, develop and maintain a population information system that meets the needs of all stakeholders. (AGC, 1991, Sections 14.43, 14.42)

In its response to the Auditor General, DIAND pleaded the process--not the policy--of devolution. In other words, according to DIAND the fault in accountability was that of the bands themselves. It is clear that bands have limited and circumscribed legislative powers, and that all band actions are monitored, vetted, and approved or rejected by DIAND; and further, that in this process of "devolution" DIAND has not

provided adequate guidelines for personnel, social, and economic accounting, much less the direction or capacity for such accounting.

"Devolution" seems not to have addressed the political and economic relationships of the internal colonial model, but to have reinforced the dynamics of the assymetrical relationship.

Urion (1983) applied the internal colonial model to an Indian and Metis community in Northern Alberta to see if any kind of advocacy position could be derived from the model. He found that most of the theorists of the internal colonial model were pessimistic about change. The model did not provide an advocacy position or point to any remdiation. Urion also pointed out that the model interpreted action on the part of internally colonized people only as *reaction*.

The model may be appropriate to describe macro relationships but it does not provide for a remedy and it does not provide a position for advocacy for band governments intent on change. The need is for a starting place to discuss the direction for needed change. It is in the related areas of information and accountability that the need is pointed out, so the position in this paper is that those two areas are the place to begin discussion of how to change.

The Nature of An Accounting System For Indian Band Survival

The Predicament of Indian Bands Experiencing "Devolution"

The previous two sections of the paper have demonstrated the need for information and accountability. In this section, the nature and scope of such an information system is discussed.

Indian reserves are communities under stress, and Indian bands and their governments exist under conditions of tension. The stresses and tensions are generated and perpetuated by a variety of factors which may be internal to the communities (e.g., band-specific histories of internal politics) and external (e.g., DIAND's policies and a band's specific history of its relationship with the Department). One of the areas in which those stresses are articulated is in the rhetoric of local politics. It is evident from listening to band electoral candidates' speeches, and then observing the reactions of the membership, that one way that the stress is defined is not simply in terms of development, but, in fact, in terms of *survival* of "Indians and Lands Reserved for Indians."

The present direction is inconsistent with survival. It is clear that survival requires a change from the present situation. It is the common understanding of the membership, under these conditions, that if all that can legally be done by band government is to continue administering under a system that perpetuates the illusion of "devolution," the contradictions of that term with the reality of the exercise of arbitrary, directionless, external authority, means that survival is predicated on immediate change.

Indian people see the need for resolution in the areas of both *ideology* and effective *control*. There is a need to articulate an ideology that recognizes the reality of the present situation, and that then addresses change in political systems, judicial systems, and economic systems. There must then be an accommodation of new administrative systems to be consistent with the ideologies articulated by Indian people through their own political processes. The area of control translates most effectively to "control of resources." One area of control that is subject to ongoing negotiation for many bands is in the area of land claims: an irony is that the office that funds and directs research about such claims, DIAND, is the office that Indians charge with mismanagement when a claim is made (see DIAND, 1981, 1986).

Indian leadership has to take the initiative for change, and can do so only with the support of an informed and active membership. The term "informed" is crucial in this context, and is at the heart of the argument of this paper: mechanisms for administration, band government, and development, that are proactive, visible to the membership, and consistent with the ideology of survival of the members' cultural system must be based on information that presently has not been available to bands, and further must be organized in a way that is consistent with how the band traditionally organizes information.

The starting point for the articulation of appropriate ideology and assumption of control of resources has to be a recognition of the present situation. Right now it is difficult to first identify, then isolate, the sectors in which the current problems are

generated, and then to specify the level of analysis that would provide a clear picture of the current situation.

That is because of lack of information. The existing procedures for accounting at the Band level are only for the revenues that have been transferred from the Federal government to the Department of Indian Affairs. The Department has its own formulas for determining the allocation and distribution of resources, based on a per capita accounting of the Band's membership and the size of the Reserve. There is no unity of purpose by the various interest groups involved: DIAND, factions and individuals within the band, external development agencies, and consultants, all have divergent approaches to providing solutions to address and then resolve the many problem issues at the Band level.

The assertion has been made that DIAND's implicit policy is one of containment and control. That at least is an effect: the poverty of information, to the point that we do not have a clear picture of even the demographics of the reserves, effects that policy.

If there is to be change--and survival is predicated upon there being change--it would be of vital importance to identify the specific problem areas, to describe the dimensions of the problems, and in the process to define the areas that are involved in designing, developing, and implementing a set of social and economic accounts for Indian Bands, accounts that are consistent with a band's ideology and understandable in terms of a band's culture.

Methodology: Establishing Social and Economic Accounts

The critical first step in establishing social and economic accounts is to recognize the difficulties that are realities at the Band level. When the complex picture starts to unfold it is one of competing interests of different sectors and players. There is not an information base on which to identify the dimensions of the stakes that are involved, but there are a number of ideas about what the stakes are. As background to all band-level administration, there is the knowledge that the main stake is survival.

That DIAND, as a stakeholder, does not define band level administration in those terms, is demonstrated in the fact that even as the Department talks in terms of "devolution" it does so in a legal and administrative context that allows no such thing. It does so without reference to a definition of the scope of the power, authority, and jurisdiction of the leadership in an Indian community.

The point of this paper is that it does so in an information vacuum. At the band level there is an obvious and conspicuous absence of detailed planning and considered decision-making within a working management framework. Structures and processes for planning and decision making are ad hoc. Neither is there any information available about economic leakages and the inter-relationships between the various sectors that can be found within the boundaries of an Indian Reserve.

Then there is the situation that is almost inconceivable: there is usually no ability to monitor monetary transactions in the Indian community that occur during a particular time frame, and between the community and other communities. There is no accounting system that appears to have the capacity to produce information that is

organized according to the unique characteristics of indigenous cultural values and practices, and to relate indigenous categories of knowledge to the categories that other governments use. Sectors themselves are poorly defined in the ad hoc accounting and planning systems that are in place, systems which often consider the reserve to be a homogenous unit and do not distinguish amongst such obvious sectors as government, business, households, and non-residents.

Questions From the Field: Information Needs

Over the past three years I have had discussion with First Nations administrators, councillors, chiefs, and Elders about the need for designing, developing, establishing, implementing, maintaining, and evaluating a set of social and economic accounts that would be controlled, owned, and operated by a band. The examples below, of questions that First Nations administrators have about the use of such an accounting system, are taken from interviews conducted in British Columbia and Alberta. They illustrate the categories with which real administrators grapple in this context. When administrators are presented with the proposition of having information accounting at their disposal, they have asked questions such as these:

How will this solve bookkeeping problems?

Every year I have to do the Nominal Roll[2]*; will this improve the process?*

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[2] The Nominal Roll is a personnel accounting strategy that tracks reserve residents between the ages of 4.5 and 21 years who are in school.

How will this help housing issues such as allocation of housing, housing conditions and maintenance?

Will this help with audits?

Will this help in the 5-year timetable for self-government; will this help us get ready?

Will this help in knowing the effects of any specific industry, and how an activity will affect the community?

How will this help track who gets what?

Could this system help preserve traditional methods?

What proof do you have that this system would really work?

Will this help us to have more input into the logging industry, the agricultural industry, the recreation industry, and all the other industrial activity in our region?

Will this help us to address jurisdictional issues such as boundary information and historical preservation?

Within the framework of our Treaties, will this—or how will this—address the legal, constitutional, and jurisdictional problems?

Who will have control of all information this system will have?

Will the community have to provide all the information to the Tribal Council?

Do you have any idea how this will help our health and welfare needs?

Could we solve our problems for employment and training?

We have problems with high rates of drug abuse and drop out rates from school; could we use this system for helping our youth?

Those questions range from immediately practical, through political and cultural, to ideological. An accounting system that addresses all those areas will have to be one of very large scope. Another measure of need is to look at the kinds of issues that band councils discuss and make decisions about. A partial list of general categories, from a council in interior British Columbia and a council in North Central Alberta over a period of six months, is shown in Table 2-1 on the following page.

A first step in developing a statement of the kind of information that is needed is to look at the kinds of information for which there is an immediate need, in order to meet current responsibilities for accountability and in order for Indian people to be able to set a direction for change. The list of questions shows a category of immediate needs; Table 2-1 includes a range of subject areas in which there is both an immediate need and a need for long-term planning and information.

Categories of Information Needed In and From the Field

The definition of these areas can be read as a suggestion for a beginning point for the range of accounts that is necessary to effect the change that will lead to survival. If information could be collected, maintained, and updated, on the axes of the following, an initial assessment of the situation of the band could be made. The information categories that are described in the following discussion are derived from the kinds of questions that members of band governments have to deal with--at

Table 2-1. Example of Range of Issues Discussed at Band Council Level

environment	technical support	constitution
fisheries	tourism	interim measures
forestries	citizenship	land question
information systems	passports	provincial affairs
watershed management	taxation	right of way issues
economic leakage	health	specific claims
parks	communication	adjacent reserves
justice	minerals	federal affairs
policing	trapping	legal questions
environmental appraisals	residential schools	self-government
facility appraisals	water quality monitoring	international affairs
environmental impact assessments	erosion control	treaties
training system	employment	housing
education systems	wildlife	social affairs
	elders' benefit	child welfare
	package	child care
	education centre	education
	research	resource centre

present in an "information vacuum." Collecting and relating preliminary data in these categories should provide a window which would allow us to judge the sufficiency of the categories, to identify other categories of information that might be needed, and to judge whether or not this approach would be beneficial not only in accountability and

credibility, but also as a decision-making tool to assist in a band's priorization of plans and projections. Such a system of accounts would be crucial also in the area of project management where the integration of these accounts would be useful in priorizing the sequence of events and the schedule of activities.

Table 2-2 provides an overview of some basic information-requirement categories. Though much of it is basic, such basic information is currently not available to most Indian bands and administrations.

Table 2-2. Categories of Information Needs.

CATEGORY	SUB-CATEGORY	SUB-SUB CATEGORIES
POPULATION	population counts	age, sex, marital status, ethnic or cultural origin
	births and deaths	
	mobility status	
	household data	patterns of relationship in composition of households; family structure; dependency ratios
	migration issues	reasons for moving to/from community
		migration patterns
		barriers to migration
	C-31 (reinstatement) data	
HOUSING	number of occupied dwellings	types of dwellings, tenure, size
	value of dwellings	
	current condition of dwellings	structural assessments; expenditures on repairs
	geographical location of dwellings	
	housing needs	existing infrastructure; waiting lists for housing; general housing needs (number); specific housing needs (e.g., elderly; handicapped; day-care)
	yearly housing payments	

LABOUR	total labour force	by demographic variables by skills inventory
	employment opportunities	
	employment rates and patterns	participation rate, unemployment rate
	productivity	part-time and full time weeks worked, by individual
	place of work	
	nature of employment	by sector or industry by professional, technical category
	geographic places of work	
	assessment of seasonal employment cycles	
	assessment of reasons for unemployment	
EDUCATION	levels	highest certificate; years of schooling degrees
	fields	fields of academic study; area of skilled trades;
	location	schools, institutes, training programs, or specific courses attended and/or completed
	educational aspirations	by individual
	completion rates	patterns of graduation, attrition
	completion factors	reasons for incompletion; reasons that appear to point to success
	band educational institutions (e.g., schools)	evaluation; participation rate; completion rates; community perception
HEALTH	current health status	epidemiological information; disabled in band population (i.e., number and type); patterns of accessing health care facilities for (a) intervention, (b) prevention, (c) treatment
	health and safety awareness	
	lifestyle	e.g., patterns of alcohol and drug use
	mortality	
	services, facilities, personnel	geographic location; nature of service; relative patterns of access

INCOME	family and individual income sources	employment; investment; government transfer payment; traditional income sources; other
	income level	average income
	income distribution	
LANGUAGE	patterns of language use	mother tongue, home tongue, language ability, by individual
	Aboriginal language issues	*by individual*: age when lost, identification with Aboriginal language *by community:* use in school; availability of programs and material
CULTURE	traditional community activities	*by community:* availability and sponsorship; cultural facilities *by individual*: participation
EXPENDITURE	personal expenditures	type, location, by population characteristic
	firm expenditure	type, location
	band administration expenditure	type, location
	expenditure index (CPI)	
NATURAL RESOURCES (TOPOGRAPHY)	roads, reserves, waterways, forest cover, wildlife habitats	Treaty rights related to natural resources (hunting, fishing, trapping, harvesting; minerals)
	land tenure, assessed value	
	mineral deposits	
	water licenses	
	spawning grounds, etc.	
CAPITAL ASSET INVENTORY SYTEMS	all relevant municipal information: road names, surface and subsurface utilities; sewage lines; buildings; permanent structures--infrastructure	

There are comprehensive collections of data that now exist, but the form, organization, and purpose of current data collections are not appropriate to the purpose envisioned here. The nature of the census data that are available illustrates local information needs at a very basic level.

Bands maintain membership rolls. There are big discrepancies between DIAND and band administrations' figures for both band membership and reserve residence. There are also very significant differences between DIAND's and Statistics Canada's figures for reserve residence in both the 1991 census and the post-censal survey of Canada's Aboriginal population that took place in 1991-92. The publication in 1994 of community profiles based on the 1991 census and the post-censal survey (see e.g., Statistics Canada [1993a]) would appear initially to be useful for the communities for which data are reported, but the real usefulness of those data are for regional comparisons.

For example, DIAND (1991b, p. 179) shows a total population of registered Indians living on reserves of 252,969 as of December 31, 1989; according to another tally exactly two years late (DIAND, 1993, p. xiii), the figure was 295,032--a very large proportional increase, if those figures represent either population growth or migration. In the meantime, the population count from the 1991 census showed the "population with aboriginal origins and/or Indian registration" resident on Indian reserves to be only 189,365, on June 4, 1991, based on a 20% sample from the total 1991 census (Statistics Canada, 1995, p.8). This margin of discrepancy is reflected at

all geographic levels--regional, provincial, and local--and cannot be explained on the basis of the 78 bands across Canada that did not participate in the census.

Even for those that participated, the figures for individual communities vary widely. The figures for the Kainai Nation, the fourth largest band in Canada, for example, show 5,635 in 1989 and 6,024 in 1992, but only 3,981 in 1991 (DIAND, 1993, p. 43; DIAND, 1991b, p. 82; Statistics Canada, 1993, p.1). The Big Stone Cree figures in Central Alberta show an even larger discrepancy: 1,084 in 1989; 891 in 1991; and 1,480 in 1992 (DIAND, 1993, p 43; DIAND, 1991b, p 75.; Statistics Canada, 1993a, p. 3). Two of the settlements of that band show an even more typical pattern of wildly ranging totals when the figures refer to smaller communities within the band: Chipewyan Lake was said to have 170 Big Stone Band members in 1989, and Calling Lake was said to have 19 (DIAND 1991b, p. 75); but the community profiles for the post-censal survey had figures for those communities of *all* Aboriginal people to be 382 for Calling Lake and 81 for Chipewyan Lake (Statistics Canada, 1993a, p.1).

The community profiles of the post-censal survey provide interesting data for comparison between communities but certainly would not serve as benchmark data for any community. For example, 10 of Alberta's 42 First Nations did not participate in the 1991 census and an additional six communities were incompletely enumerated in the post-censal survey (Statistics Canada, 1993b, pp. 31, 35). Nineteen of Alberta's 70 Aboriginal communities that were surveyed and in which Treaty Indians lived have populations too small to be reported without compromising individual identities

(Statistics Canada, 1993a, pp. 1-3; 1993b, p.25). Furthermore, the data themselves are based on a sample of around 20% of the total "domain" of non-urban Aboriginal people--not even a sample randomized within each community--and in small communities (i.e., all but four or five of the largest reserves), the data reflect the interesting formulaic result but not the community reality. Noting the possibilities of sampling and coverage errors (Statistics Canada, 1993b, p. 14), even when it is available, interpretation of the data in the community profiles has to be made with extreme caution.

In any event, the categories of the post-censal survey community profiles would not provide data to answer the important questions. For example, a band should have a data base that allows administrators and policy makers to find out what distance, residence location, and transportation variables are involved in elderly and handicapped residents' access to retail food and prescription drug sources. That is the level of comprehensiveness needed in a band's information infrastructure.

The Scope of the Information Needs

Comprehensive financial information has to be collected and organized with an organizational logic that relates to development. An organizational scheme would probably best be justified by expressing it as a model. During the 1960s and 1970s governments and researchers who focused on regional economic development in depressed areas were faced with the same question about the scope of information need. The studies they produced give an indication of the scope and range of such

needs for addressing development. For example, just a few of the studies and models for the Cape Breton area completed during that era illustrate that the scope of information needs is both wide and that the information must be specific (see e.g., Czmananski, 1968, 1970, 1972; Czmanski et al, 1968; Macdonald, 1975; Palmer, 1974; Wood & Palmer, 1970; Wood and Verge, 1966).

By contrast with the models for Cape Breton, the document used by DIAND to familiarize band councils with "economic development," a publication called *Take Charge!* (Westcoast Development Group, 1985) is sketchy. That problem is not that the discussion of issues is abbreviated: the little volume edited by Wilmers and Bourdillon (1985) that focuses on revitalizing local economies in the United Kingdom is also an abbreviated discussion but it contains the same imperatives for comprehensiveness as the Cape Breton studies. *Framing the Issues*, the first discussion paper of the Royal Commission on Aboriginal Peoples (1992), is a short discussion but gives an indication of the wide and comprehensive scope that even a basic discussion of Indians and current developments involves.

A model that is context-sensitive has to be a comprehensive model.

Isard (Isard and Bramhall, 1960), in his discussion of accounting for underdeveloped nations advocates the triple-entry system of accounts (*income - output - expenditure table*). In this context, he also notes the pitfalls of removing estimates of accounting categories from their cultural context:

> It is all to easy (1) to impose on an undeveloped region (nation) a set of social accounts appropriate for industrialized regions; (2) to overstate the importance of money transactions and the accounts measurable in currency (partly because

> of availability of data on these transactions and accounts); and, as a consequence (3) to derive distorted measures of welfare. (p. 103).

These pitfalls are appropriate to First Nations accountability. Added to this is the issue of the ease of collecting hard qualitative data versus the difficulty of defining and collecting soft qualitative data. Isard stresses the need "to consider the folk culture and unique character of each region, hence ways of allowing for different types of accounts, categories of activities, and pricing and valuation procedures for different regions" (p. 116). This concern is also noted by Bendavid (1972, p. 25), when he states "in some cases it may be advisable to arrange for a special supplement to the statistical compendium to deal with nonquantifiable social, cultural, institutional, environmental, or other aspects of the regional fabric."

It is clear from the forgoing that in addition to the kinds of information that have been listed, there would also have to be comprehensive economic information available to long-term planners:

1. The accounting system would have to summarize the monetary transactions that take place in the economy of the community over specified periods of time.
2. There would have to be a mechanism for systematically classifying and recording a complex network of monetary flows that are associated with the exchange of goods and services between transactors.
3. Some kind of accounting or orderly presentation of the most significant financial transactions would have to be recorded in order to reveal the structure and interaction of the major parts of the band economy.

4. There would have to be some kind of measure of the values of goods and services that are produced.

5. Economic transactions would be classified into four sectors. An example of what the bands would have to look at for each sector in terms of hard fact is contained in the report of the Canadian Federation of Independent Business (Thompson, Marash, & Said, 1986). In the band context, each sector would be differentiated from the others according to its primary function within the operation of the economy: (a) government (includes all transactions by governments (federal, provincial or territorial, local, band); (b) business (includes the transactions of all private corporations and government enterprises [crown corporations]); (c) households (includes all transactions by households and unincorporated businesses [self-employed persons, independent stores, etc.]); and (d) non-residents (includes all transactions between the territorial economy and external economies of other regions or nations).

The overriding principle of maintaining economic accounts is based on the notion of balance in the economy. Therefore, the transactions of the sectors must be identified and classified such that equality is reached between all sectors or parties of the transactions. The procedure used in developing a set of economic accounts is the same as that used in business accounting, i.e., double-entry accounting with debits and credits, and for every transaction that is recorded, an offsetting transaction must be identified within the economic system. In effect, any single transaction in a sector will

affect one or more sectors. Thus, the economic accounts represent a closed accounting system, with all parties to a transaction being recorded.

Principal items of information provided by the accounts would be measures of the dollar value of output for the economy, specified in terms of Gross Domestic Product (the market value of total output produced by all establishments operating in the band) and Gross National Product (the market value of output that accrues as income and factor payments to residents of the reserve).

Economic accounts should be structured to show a classification of transactions in the band economic system, by sector.

There is no doubt that the number of accounts would increase as the informational needs of the bands increase. The increase would depend a lot on the particular sector that was most active in the specific band. While it is obvious that more information is available from the accounts most frequently used, it is just as important to focus on other information that would become available as a result of the integration of the various sectors.

The Organizational Logic of First Nations Accounting Systems

So far the information that is required has been represented as a series of lists. Practical needs from a band administrator's point of view are represented by a list of questions. There is a list of representative topics dealt with by band councils. Those have suggested another list, a list of categories for information based on social and economic accounting.

The issue now is to find the organizational principle for the information that needs to be accounted. That implies an organization of the data that is based on a matrix. One unidimensional matrix might show relationships between categorized information (i.e., values that are entered in terms of a the "list") and some other category of information need. An X axis of a matrix might list the kinds of accounts (e.g., demographic categories such as age and employment, education level), and categories on the Y axis might be such things as "Federal Government Relations," "Labour Relations," etc. Information needs and information categories can be defined by looking at the intersections within the matrix, (e.g., projections of issues having to do with labour relations, based on the configuration of band members' professional and vocational education would intersect at "Labour Relations," and variables associated with "education.")

It should be apparent that an organizational scheme for data would have to be multidimensional to account for a fairly wide variety of intersections between data and application, data and information need, data and sector, data and band members' attitudes, etc. The best organizational scheme can only be developed through application and trial, so only preliminary suggestions of multidimensional matrices are possible at present.

There is a further requirement for accounting in Indian development and Indian administration, and it is fundamental to the collection, organization, retrieval, and use of information in accounting systems. Consider, for example, the broad category expressed in English as "land." It could be a major category in an English-

language-based accounting system. Aspects of land that come immediately to mind are "land use," "taxation," "zoning," and "resources," to name but a few.

A Cree-language based information and accounting system would suggest quite a different range of things immediately related to land. "Medical care systems," "genealogy," and "bases for authority (e.g., legitimacy of band leadership)," are three information categories that are closely related to concepts of land. The relationship of "land" to "language" is conceptually quite different in Cree cosmology than in Western tradition.

An information and accounting system that is used in band administration and government will have to be organized according to principles inherent in band cosmology. That is both the challenge and the potential of a project to develop a meaningful accounting system for bands. The adequacy of such a project, and its organization, will have to be both developed and then proven in an application situation.

The concept of such accounting is provable. Implementation would involve a stage typified by risks and uncertainty (no greater risk being involved, however, than the uncertainty of the present). Its proof would involve the expectation that by undertaking the task of justifying, verifying, and legitimizing an accounting concept which has not yet been developed, there would be an intermediate point where the possibility of the creation of such a product and process could be demonstrated, and then evaluated in physical and tangible form. There would have to be an initial stage of information gathering into "lists." It would be incomplete and rudimentary, but

that stage would lead to an intermediate stage, where specific suggested applications could be tried out, and the relationships of multidimensional matrices, informed by Indian conceptual arrangement, could be tried.

That intermediate stage would thus be a time when a particular application could undergo rigorous assessment to determine the level of adaptation, development, or other alternative requirements of the concept. If one application were successful—if it provided information upon which decisions could be made in the specific cultural and political context of the band, and if the accounting system accurately reflected the social and economic domains it was supposed to represent—such a social and economic accounting system could be expanded in scope to address broader areas of management in the struggle for survival of "Indians and Lands Reserved for Indians."

The pre-design, design, and post-design activities and events requires an individual or a designated team, within a specified time frame and with a defined budget, to yield usable results. Up to the intermediate stage of development, when data gaps and organizational problems would be encountered, the concept is unprovable. The deficiencies in the concept would define whether or not that "intermediate stage" could progress to a "real application" stage. At that point, when there would be a clearer picture of what distance is yet to go and whether it would be worthwhile developing the concept, an attempt could be made to demonstrate the proof of the concept to the band membership.

Though the analytical and modelling functional capability of such accounting systems sound good. There are enormous associated costs, steep learning curves, that would be incurred for such a system. The reason for this additional cost is in part based on the fact that existing efforts into implementing any form of social and economic systems do not have specific elements that can be easily adapted to a band needs matrix. The application costs for the adaptation of, or the development of, a social and economic account system tailor made to suit the needs and interests of Indian Bands is going to be high.

Summary

1. DIAND has had responsibility for management of Indian affairs. DIAND says that control of band affairs is in the process of "devolution." It is clearly not meeting its responsibility for accountability to either Parliament or to Indian bands and people. If for no other reason than a poverty of accounting information, DIAND has mismanaged.
2. That mismanagement is consistent with an implicit policy of control and containment, *not* devolution or self-government, which can be described in terms of the internal colonial model. The internal colonial model includes no structural or procedural directions for change.
3. Change is necessary not just for development in Indian communities, but for survival. Information and accounting needs in connection with survival are a priority.

4. Any information or accounting system model that is going to contribute to Indian development and survival must be more comprehensive than almost anything reflected in the literature about development. It is going to have be based on a new design.

5. That new design is going to have to be organized according to Indian conceptual organization, **in the context and content of Indian ideology and real Indian control**, not DIAND "devolution."

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CHAPTER III

The Environmental Issues Inventory Project: Issues for the Future [3]

Introduction

Beginning in 1990 the federal government initiated a huge program involving environmental audits on all Indian reserves in Canada. The objectives were to find environmental hazards and propose remedies for them, but a broader objective was to discharge federal responsibility in the environmental sphere for looking after the interests of Indians and Lands Reserved for Indians. An indication of the scope of the project is that this process has had to include hundreds of bands, and because several bands have several individual parcels of land reserved, thousands of reserves.

In this paper, three selected examples of the reports generated in the process are reviewed in summary terms to evaluate, based on the cases that are reviewed, (1) whether or not the process met the federal Treaty and constitutional responsibility for looking after the welfare of Indians and Lands Reserved for Indians; and (2) whether or not the process met the objectives established in the project, in accordance with minimum standards of accepted environmental research standards. In addition, some implications of the project in the context of environmental research needs are discussed.

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[3] A version of this paper will be submitted to *Native Studies Review*.

Federal Responsibilities For Environmental Audits and Remediation

Legislation and court decisions during the late 1980s established that the Government of Canada was obligated to take positive action in assessing the internal and external environmental impact and environmental hazards in connection with past, present and proposed development activities on Indian Reserve lands. Indian and Northern Affairs Canada (INAC) had the responsibility to comply with the Government of Canada environmental mandate, through a process of environmental studies of all Indian reserves in Canada.

The Environmental Issues Inventory (EII) Project was established to be a first step in meeting that obligation. The EII design and implementation process was operationally divided into four phases. During the first phase, documents were to be searched in order to describe the reserve and those aspects of its history that might identify environmental issues. The second phase involved the creation of an inventory of environmental concerns, based on data collection in the community, site inspection, and sampling. The third phase was to focus on those issues identified in Phase II as potentially problematic, and was to involve selective extensive technical site assessment and recommendation for remediation of problems. The final phase was to be an inventory summary and plan for remediation of problems.

The EII project was mandated to:

1. determine the location, nature and significance of existing and potential environmental issues;
2. identify and document environmental issues which could result in

(a) serious health and safety risks to community members; and/or

(b) breaches of federal environmental legislation or litigation involving civil liability.

Those objectives would indicate that the process has to rest on both compliance audits and management audits, as such audits are distinguished by Iwanski and Thurman (1995). Compliance audits, which Iwanski and Thurman say are "less effective, ... identify non-compliance with regulatory requirements ... and recommend actions needed to correct the specific noncomformances addressed in the audit," but "seldom address the root causes of the noncompliance." Management audits, on the other hand, define the causes of compliance problems, and provide knowledge on "how to improve processes ... so that risks can be better managed" (p. 31).

Whether or not the federal departments responsible for the EII meet their obligation in both management and compliance audits, through the process which they have set up, is open to question. In a general sense, the entire EII process is a "compliance" audit, in that there are serious personal consequences of noncompliance for federal employees. The Deputy Minister of Indian and Northern Affairs Canada, Harry Swain, outlined the situation in a letter to management officials in the Department, dated August 20, 1990. He noted that the Canadian Environmental Protection Act (CEPA) obligated the Department to assess the environmental implications of any of their decisions and actions, to do so early in the process of decision-making, and certainly to do so before any irrevocable decision is made (Swain, p. 2-3).

The consequences of non-compliance with CEPA were potentially more serious for government employees than in most other cases. Mr. Swain reminded the officials that CEPA was a criminal statute, and that government employees' failure to comply with quite specific requirements in environmental assessment could result in criminal, not civil, charges against individuals; and further that the government could not indemnify its employees in any case of criminal proceedings that might result from a failure to comply with the requirements set out in CEPA. Swain also noted that "following the Rafferty-Alameda court decision, EARP [the Environmental Assessment and Review Process Guidelines Order][4] was considered federal regulation" (Swain, p. 3).

The response of the Alberta Regional office was typical of other regional offices of INAC. Following national guidelines circulated by the INAC's Director General of Lands and Environment, an Environmental Issues Inventory Project was established

> to identify and document those environmental situations on reserves which could result in serious health and safety risks to community members and potentially expose the department to direct breaches of federal environmental legislation or to litigation involving civil liability" (Varette, n.d.).

The federal project description, circulated with a letter from W. Van Iterson, Director General of Lands and Environment, INAC, notes that "at least 28 federal laws [are] associated directly with environmental protection of Indian lands" (Carr-Stewart 1992,

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4 A new Canadian Environmental Assessment Act (CEAA) came into effect in January 1995, which changed some of these provisions.

p. 1). The most relevant pieces of federal legislation were the *Canadian Environmental Protection Act* (CEPA) and *The Fisheries Act*. Other relevant federal legislation were the *Transportation of Dangerous Goods Act* and the *Indian Act: Indian Reserve Waste Disposal Regulations* (IRWDR). Other areas of civil liability included activities and substances threatening a community's water supply or food source.

The Environmental Issues Inventory Project was designed to respond to the federal mandate. Its realization in the Alberta region is briefly described below.

The Phases of the Environmental Issues Inventory

A description of the Alberta Region of INAC's EII project is provided which articulates the phases, as they are described in an undated one-page circular distributed within the department:

Phase I. Document Search. The development of "Environmental Profiles" for each reserve in Alberta was completed early on in the process.

Phase II. Community data collection, site inspection and sampling, consists of five stages. *Stage 1: Detailed Historical Site Assessment*. (Involves the production of community profiles based on information obtained from government agencies such as Indian Affairs, and Health and Welfare Canada). *Stage 2: Community Data Collection*. (Involves meeting with Chief and Council and members of communities to review the community profiles for accuracy and to collect additional information of concern). *Stage 3: Remote Site Reconnaissance Assessment*. (Involves the integration

of the information from the profiles, community members and air photos to identify potential sites for investigation). *Stage 4: Site Inspection and Sampling*.(Accompanied by a community representative, technicians will inspect each and every site identified as a concern by community members. Technicians will, when necessary, take samples of soil, water, or other substances for laboratory analysis. Before leaving, the community will be provided with a list of the observations made by the technicians). *Stage 5: Report Compilation and Recommendation*. (Based on the observations and results of laboratory analyses a report will be produced identifying the degree of risk to the health and safety of community members. Recommendations for action plans will be provided. These reports and action plans will be discussed with communities so that partnerships can be undertaken to rectify the problems).

Phase III and *Phase IV* activities were to be derived from the results of Phase II. (Varrette, n.d.) The original plan was for Phase II to be completed between June and December of 1993. Phase III ("Selective extensive technical site assessment of areas suspected of being contaminated") had a projected completion date of September, 1994, while Phase IV ("Inventory summary and strategy development for site remediation and development of cleanup and remediation plans") was scheduled for completion in December of that year (Varrette, n.d.; Van Iterson enclosure, pp. 5-7). In fact, lack of funding slowed down progress, with the result that only some of the bands have sufficient information to begin Phase IV activities.

Summary of Federal Responsibilities to be Addressed by the EII

The federal responsibility for environmental accountability was almost unbelievably broad under the legislation and subsidiary regulations that existed in 1990, and INAC's Environmental Issues Inventory Project was supposed to address those responsibilities. A summary review of areas of federal responsibilities includes, but is not restricted to, the following.

1. INAC was responsible and accountable in design direction, administration, and implementation of Environmental Issues Inventory Phase I, with respect to content, structure and process to ensure compliance to legislation. As the first step in defining environmental issues on Indian reserves, the comprehensiveness and scope of the documents review of Phase I would establish the "paper" context for the subsequent phases.
2. INAC was responsible and accountable for identification, assessment, analysis, cost estimate, and remediation of environmental impacts, hazards, and emergency conditions and situations within the reserve's inventory portfolio (land, soil. water, air, infrastructure, assets, etc.).
3. INAC was responsible and accountable for maintaining procedures for information gathering and analysis, on an ongoing basis; and for ensuring that the techniques and methods used in gathering information about the environment, potential and real hazards, and emergency information, reflected qualified and experienced technical and professional expertise.

4. INAC was responsible and accountable for the quality of the reports, assessments, and analysis; and for the accuracy and reasonableness of cost estimates for remediation of problems.

5. INAC was responsible and accountable for ensuring that in all phases of the Environmental Issues Inventory, and in any remediation or continuing research activity, the best interest of Indians and lands reserved for Indians was served.

6. INAC, of course, had the responsibility to demonstrate that it was able to meet the Government of Canada's mandate to provide for the interests of Indians and Lands Reserved for Indians; but at the same time had to demonstrate compliance and accountability to other ministries within the Government of Canada (e.g., Department of Environment, Auditor General of Canada, Health and Welfare Canada, Treasury Board, Department of Justice, etc) and of course to parliament.

7. INAC was responsible and accountable for the substance of each report that was generated in the Environmental Issues Inventory Project, i.e., for what requirements and factors were identified and included in decisions to approve, certify, recommend and monitor Environmental Issues Inventory plans, contracts (amendments), services, schedules and budgets.

8. INAC was responsible for developing the Environmental Issues Inventory policies, directives, criteria and standards, not only in terms that reflected compliance with the objectives of the single project, but further, to ensure a continuing capacity to maintain and monitor evaluative analysis of a reserve's

total portfolio (land and assets), according to accepted principles, practices and standards of assessing environmental impact or hazard; and for a continuing capacity to assess hazards, manage environmental emergencies, and act to remedy future environmental problems.

Given the number of bands and reserves in Canada, the federal responsibility that was acknowledged in the 1990 protocols was staggering.

To see how INAC has carried out its mandate--to evaluate whether or not it has met its responsibilities--there has to be some level of standards in an environmental audit.

The Issue of Research Standards in Environmental Audits

O'Dell (1990), in a general paper prepared for the Indian Association of Alberta, reviewed comprehensively the unique status of reserves with respect to environmental audits. She says that some of the pitfalls involved in environmental audits have had to do with (1) comprehensiveness; (2) the potential for bias in cases of internal audits; (3) the requirement for monitoring situations rather than for one-shot data gathering (i.e., relative to periodic audits, special audits, comprehensive audits); and (4) the requirement for clear criteria for environmental audits.

Based on her notation of possible "pitfalls," a first set of standards would be to ensure (1) that Phase I of the project, on each reserve, would be both general and comprehensive, i.e., based on a comprehensive records review of band and INAC documents, a literature review of published and unpublished reports that relate to the

reserve environment, and an address to the potential for the band's and INAC management system to identify possible environmental concerns; and (2) that subsequent phases, in which detailed information is collected, remediation planned, and ongoing monitoring is set up, are detailed and comprehensive.

The issue of bias in internal audits should be met by having as broad a range of band personnel involved as is possible; and by involving experts outside INAC in all phases of the project; and perhaps most important, by establishing some procedure for peer review, possibly blind review, of reports[5].

The issue of continued monitoring versus the one-shot data gathering goes beyond the specific terms of reference of the Environmental Issues Inventory Project, but if that project was to have been successful, one of the consequences would have been a system for monitoring.

The final requirement for clear audit criteria means that in the conduct of the EII, there should be some kind of reference to accepted practice for environmental audits.

Hedstrom (1994b) says that as of 1994 "perhaps no aspect of environmental, health, and safety auditing is more in flux than audit standards" (p. 103). He charts progress in the field through the 1980s that saw the development of common practices in the field in the early part of the decade, followed by the articulation of a relatively

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[5] Hedstrom (1994b) notes that of the 13 international organizations that had adopted major and comprehensive statements of standards in environmental auditing, by 1993 only the European Union had included a requirement for third-party verification.

common set of principles in the last part of the decade. The setting of common standards for auditing, which Hedstrom's dates as taking place around the time that the EII project was being conceived, would likely be followed by some kind of system of certification for auditors (p. 104).

Most of the literature on environmental audits seems to based on business and development. It is oriented to industry. Hedstrom (1994a: 11; 1994b:103-112) says that the comprehensive standards are most recently articulated in a document prepared by experts associated with Arthur D. Little, Inc., and Allied-Signal for the International Chamber of Commerce, called *Guide to Effective Environmental Auditing*; Little's *Principles for Conducting Environmental, Health, and Safety Audits*; the 1993 publication by the Environmental Auditing Roundtable of "Standards for Performance of Environmental, Health, and Safety Audits," and the work of the Canadian Environmental Auditors' Association, in conjunction with the Canadian Standards Association (e.g., the document "Environmental Auditing Principles and Practices")[6]. Hedstrom (1994a: 15), who publishes widely about standards, says that the "scope, depth, and rigor of audits will continue to increase" as global agreement on standards becomes common, and that there will be a clearer recognition that environmental audits include considerations of health and safety.

The characteristics of effective audit programs, articulated by Arthur Little (cited in Hedstrom 1994a: 12) include:

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6 Other standards and guides are provided in Canadian Council of Ministers of the Environment (1991); Croal (1992); Duffy (1986); and Sadler (1987).

> *Objectives*: Explicitly defined objectives can prevent varying interpretations by audit team members and misunderstandings...
>
> *Scope*: Clearly defined boundaries for the program's overall scope make it possible to meet audit objectives with available resources.
>
> *Coverage*: Decisions about coverage priorities enable organizations with many facilities to emphasize major facilities without overlooking others.
>
> *Approach*: Matching audit approach to audit objectives enables the [organization] to better focus specific audit activities on areas such as verifying compliance or confirming management systems.
>
> *Resources*: Audit program effectiveness is a direct result of the expertise, proficiency, and training of the personnel who conduct the audit.
>
> *Organization*: Senior management support is critical if the audit is to achieve its objectives, obtain accurate information about environmental performance...

Individual EII assessments and reports could be evaluated on any one of those bases. The objectives of the project are very broad and the scope is very comprehensive. The question might be asked: given such broad scope and such general objectives, what level of coverage should be entailed in the environmental audit of a reserve?

The Clarity of Criteria for Environmental Audits: Some Examples

As an example of the comprehensiveness required in federal environmental audits, to indicate the level at which criteria are to be specified, one might refer to such manuals as a Public Works Canada (1991) statement of protocols for an environmental audit of a single facility such as a building. It might be assumed that if a single building requires this level of preparation and comprehensiveness of address,

then an entire reserve, with many buildings and infrastructural environmental changes, would require an equivalent and proportional level of complexity.

The PWC manual document describes in detail the background preparation that is to take place for auditing a single building. It starts with a requirement for consultation and information-sharing with the people who are involved with the building, during which the audit process and the time frame for various steps are explained; it identifies specific roles of personnel for contact and consultation and is clear in the requirement for meetings, where the specifics are detailed. In three pages of detailed outline it describes the documents, people, records, and observations that are to be considered as simply preparation for an audit; it is clear about the classes of expertise (e.g., engineering, technical, archaeological/heritage, regulatory, and administrative) that are required on an audit team; and very, very clear about the requirement for specific rounds of consultation with all the people involved. Each step of the protocol is then described in exhaustive detail in a document that runs to around 100 pages.

Two fairly recent publications directly address the comprehensiveness of the audits completed in the EII. INAC (1992) has published an *Indian Environmental Protection Manual* that appears to be quite specific in its requirements (e.g., there is a 19-item broad-spectrum checklist for a single type of installation, a pipe-line; there is a matrix checklist of 21 x 22 categories, concatenating environmental concerns with human activities involved in development with which a single installation or project may be assessed; given the complexity of activities on reserves, that matrix sets up a

requirement for a very large body of information). There is no comparison between this document, however, and PWC's much more comprehensive manual for completing an audit of a single building. Suffice it to say, however, that even the INAC document is remarkable for its requirements for specificity and detail.

A more recent document for the Alberta Region was prepared under the auspices of INAC, and involved representatives of each of the three Treaty areas (i.e., Treaties 6, 7 and 8) in the preparation of a manual that would allow the bands to meet the responsibilities that would eventually face them, with devolution to band control, under the provisions of the 1995 *Canadian Environmental Assessment Act*. The manual is supposed to be a "first step" (Focus Group, 1995: 3) in "assisting First Nations in building their environmental assessment capacity." At around 160 pages, it sets out broad categories and processes for assessing the kinds of information that are required in environmental assessment, the planning processes, the information management decisions, and kinds of expertise that might be needed in assessment of specific projects. It also includes a provision for including "traditional knowledge" in environmental assessments. As a "first step" it demonstrates through the very large range of issues that it identifies that the information needs are complex. It does not deal in a formal way with standards, as such.

The summary statement that can be made here regarding standards must go to one issue: comprehensiveness. It is clear that environmental assessments are nothing if they are not specifically oriented, detailed, and comprehensive.

Examples of How INAC Completed the Environmental Issues Inventory

The Identification of Sites and Issues in Phase I

The federal Department of Public Works was responsible for Phase I, the completion of an "Environmental Profile" for each reserve. Several of the reports have been made available for review in connection with this paper. One typical Phase I profile is described here, in order to provide an idea of the scope and comprehensiveness. (The band cannot be identified here.) The profile consists of these components:

(1) a map that indicates no more than the geographical location of the reserve in relation to its position provincially;

(2) a two-paragraph introductory statement that consists of a description of the Indian reserve name and federally-assigned identification number; size; population; and other general information on geographical location; one to three sentences describing development and land use in the most general terms;

(3) a very short list of possible environmental issues, concerns, and observations, in point form, along with a ranking (high, medium, low) of those concerns;

(4) a short point-form, speculative, and extremely cursory, statement of the scope and nature of further environmental studies, with one-statement cost estimates; and

(5) a checklist of "detailed information" that refers to the foregoing concerns: one item related to industrial manufacturing and commercial operations; seven items related to various kinds of waste disposal; five items related to storage tanks; two items related to existing asbestos; and one item each for a further-unspecified air pollution, water pollution, or ground pollution.

The other Phase I reports conform to this standard of comprehensiveness. Only in the most general sense could these cursory statements be considered to be "profiles." At the very best they could be called "preliminary observations." To say that they lack specificity is the most generous evaluation that could be made about them. The observations have no evaluative context: they are not clear about judgemental criteria or data sources . It appears, however, that these profiles were to have set a direction for the completion of Phase II.

Public Works Canada (PWC), was retained for the completion of Phase I for the Treaty 8 area of Alberta. Completion of Phase I for the Treaty 6 area was delayed due to funding, but it proceeded during 1994. It is clear from the objectives of Phase I that the activities prescribed in Phases I and II are foundational: everything else that happens in Phases III and Phase IV rests on the validity and comprehensiveness of the information identified in Page I and gathered and interpreted in Phase II.

Phase II--Data Collection and Site Assessment

Several bands' Phase II reports were reviewed. Whether or not private consultants or Public Works Canada completed the Phase ll reports, the report format is similar in all those that were reviewed. The reports of one band's Phase II study are described in sufficient detail to indicate the scope and processes involved in Phase II. The band has two reserves: a private consultant completed the report for one of its reserves and Public Works Canada completed a report for the other. (The identities of the band and of the consultant are not revealed here: the point is not about the specific report nor the adequacy of the private consultant, but about the scope and process of Phase II.) The specific reports illustrate the general pattern.

The Scope of Phase II

Comparing Public Works Canada's formal directions for completing Phase II (1993c) appears to require the same level of specificity in assessing reserve environmental issues in a "site walk-through and sampling inventory" as it does in its direction for dealing with single federal buildings (Public Works Canada, 1991). That is misleading. "The explicit and detailed requirements for single federal buildings do not limit descriptive categories to those that have been pre-defined. The protocols for reserves operationally direct the assessors only to the identification of 15 possible areas of pollution and not to the reserve as a whole, nor to a reserve management system in which environmental issues that may be unique to the reserve may be identified.

The reason may be that there is no requirement, in the protocol for reserves, for background information equivalent to the PWC protocols for federal facilities. For a single federal facility, a wide range of expertise is mandated in the background work before an audit even begins, and a similarly wide range of expertise is anticipated in the audit team. There is no such requirement in the EII project. In the protocols for a federal facility there are a number of protocols built in that will identify situational variations that are specific to a single institution; by comparison, in the project protocols there are set check-lists. There is no comparison between the two sets of protocols in terms of comprehensiveness, expertise of auditors, detail, the scope of background information that is required, and requirements for consultation and involvement of stakeholders.

The focus on possible problems in a pre-defined set of possible problem areas is seen in INAC's definition of scope of the Environmental Issues Inventory project. Given this definition of scope, it may be argued that this definition of scope is inconsistent with the list of responsibilities which INAC sought to meet when it mandated the EII project. The definition of the scope of Phase II is as follows:

1. Focus on environmental liabilities which are based in federal legislation and cover specific contaminant categories, including CEPA regulated substances, eg. PCBS, all hazardous and toxic materials.
2. Sources of potential environmental liabilities that were to be assessed and examined were to be contaminated soil, waste oil, leaking underground storage tanks (gas, diesel, etc.); petroleum product storage facilities; solid waste; liquid

waste (including sewage); industrial waste; bio-medical waste; air pollution emissions; water pollution (including fish habitat).

3. Off-reserve activities that affect reserve lands were to be addressed.

Comparison of Typical Phase II Reports

Process. A typical Phase II report for a typical Treaty 8 reserve is presented in a draft report prepared by a private consultant firm. Another Phase II report for another reserve, on the other hand, was reported in a document completed by the Real Estate Division, Property Development Group, of Public Works Canada. Each summary will be treated individually, identified as "Reserve A" and "Reserve B."

A general comparative summary description is provided to demonstrate the results that were achieved by private and government consultants. The objective here is to show the extent of the information provided in Phase II.

Reserve A The private consultants reviewed the four stage Phase I summary and identified potential problem issues. They conducted a two-day training and awareness session for local representatives who were to make local assessments in accordance with their two-day training. Local questionnaire, checklist, and sample data were collected by the three local representatives over a five-week period in October and November of 1992; two investigators from the consultant firm visited the community November 17. The local checklists (15 of them) are filled

out with "x's," under "satisfactory," "unsatisfactory," or "not applicable," with some 2 or 3 lines left for comments. The reserve's main buildings are described in 5 phrases or less. The kind of information that is included is, in a word, very superficial.

Reserve B It is unclear just what processes were involved in the collection of data for this report, except that it appears to rely heavily on document review, because it consists mainly of areal photographs, maps, and such items as a 1987 descriptive checklist of an underground fuel tank.

Content. The following is a summation of information extracted from the EII reports.

Reserve A Fourteen areas were identified for further review, based on reports from Phase I (land use, building materials, drinking water, waste management, regulatory permits, fuel storage vessels, asbestos, PCBs, urea formaldehyde insulation, chemicals, oil and gas exploration activities, other resource extraction, hazardous wastes, and other issues identified in government records). The report describes data collection procedures cursorily, identifies a source of standards for evaluation (National Standards of Canada "Quality Audit" guidelines, further unspecified nor referenced) and notes that grab samples were collected, based on these identified sources of contamination: surface water, well

water, oil and gas well sump fluids, suspected asbestos, contaminated soils, and unknown liquid wastes; it is not clear that samples relevant to all of these areas were obtained. "Grab samples" is further unspecified. The only analytic report is on the asbestos in the school. The report also notes rounds of consultation with local authorities but procedures and substantive issues are not identified.

Priorities and risks were ranked in the areas of liquid effluent and site runoff in connection with sewage disposal, the disposition of waste oil, contaminated soils associated with above-ground storage tanks, the maintenance of underground storage tanks, the handling of hazardous materials, and the presence of asbestos in floor coverings and building ceiling tiles in the reserve school. Areas that were reported but not identified as problems were air emissions and water potability, and indoor human environments; no observations nor reports motivated further study of those areas. Photographs, maps, and lab reports of samples of asbestos-containing material are included in appendices. Recommendations are included for taking care of problem areas.

Reserve B This report relies heavily on comparisons of areal maps and records review. It identifies as "environmental concerns" a landfill, though "no problems ... have been reported" and "location of old landfills should

be investigated"; an underground storage tank for a service station that "is reported" to now be closed; and a statement that "logging in the surrounding area of the reserve could have some impact on lands, watercourses and wildlife in the area."

Summary Evaluation of Sample Phase II Reports

Comprehensiveness. The reserve is the focus, but the surrounding environment is taken account of only by mentioning that it is there. The level of on-reserve development is not even remotely treated as comprehensively as INAC's own guidelines for environmental assessment.

Detail and Specificity. There is no attempt to approach, even remotely, the detail required in the audit of federal facilities. The checklists are for predetermined and general observations, not for the detail of environmental audit. There is superficial observation, with cursory focus on potential problem areas.

Process and Expertise. The involvement of stakeholders is not manifest, except in brief mention of "consultation" and "debriefing." The on-site work is either unspecified or completed primarily by persons with very brief training.

These reports purport to be Phase II reportage, upon which further study and remediation of problems were to be based. In fact, they constitute rudimentary "profile" information, and at best meets the minimum requirement of Phase 1, the completion of environmental profiles.

Phases III and IV: Technical Site Assessment and Remediation

Report Content and Structure

Another evaluative strategy is to follow the substance of reporting through Phases II, III, and IV, for one reserve. The one that provides the examples here is one of the better reports and seems to meet the summary objectives outlined in PWC (1993b) for Phase II.

The focus in the Phase II report is in the classification of 14 sites on the reserve identified in Phase I as problematic. They are divided into four high-risk sites/issues.

The high risk sites are (1) a wood preservative site, tested and found to contaminate soil; (2) the public works yard, with evident ground contamination; (3) 9 underground storage tanks, four of them over 20 years old, located at different places on the reserve, which have not been tested for integrity; and (4) the identification of asbestos material in the day care building and in several other buildings on the reserve, including some abandoned buildings.

Medium risk sites deal with (1) two main landfill sites and "numerous private landfills ... close to residential houses", posing a variety of possible risks of contamination; (2) some of the shoot-out sewer systems in the rural areas of the reserve were within 100 metres of a residence; (3) of the approximately 75 oil and gas facilities on the reserve, 20 of which were visited in connection with the study, there were "several" about which band members expressed concern in that they were close to water bodies; (4) band members feel that the water quality has deteriorated, the lake

(the water source) is at a low level, and there is "increased beaver dam activity" around municipal water sources; (5) the band farm site has an evident problem in the disposal and storage of empty pesticide containers; and (6) a site for the storage of scrap metal suggests numerous possible hazards.

Low risk issues included (1) approximately 25 abandoned buildings on the reserve; and (2) storage and maintenance issues of potentially hazardous chemicals at the community ice rink (where asbestos-containing material was also observed). A final low-risk issue included chemical storage issues at an off-reserve land site owned by the band.

The objective in the report was to state the issues in fairly straightforward terms, and the body of the report provides a 2 to 3-paragraph description of each of the 14 sites, and the observations that motivated the risk assessment. That is followed by a section in which all the sites are more completely described with a sentence or paragraph each for (1) location; (2) site description or description of issue; (3) the receiving environment (i.e., the actual place of the hazard); (4) the basis for risk assessment; and (5) summary recommendations. Photographs of many of the sites illustrate the problems.

A final report section follows exactly the same format, even with verbatim duplication, but in that section each description is more detailed. In this phase, priorities were assigned to remediation, as well as categories of risk. In addition, the parties responsible for remediation are noted. For the highest risk site, the band and INAC's environmental agencies are noted; for seven others, the band and INAC are

suggested as being responsible for remediation; the band alone was noted as responsible to remedy sewage lagoon issues and the pesticide-container issue at the farm site; and the band and a former gas-station owner are said to be responsible for investigating the state of some underground storage tanks.

A somewhat more comprehensive description of the process of investigation is included, along with copies of relevant selected laboratory reports or samples, and technical details, for each site or issue. The sites are very precisely identified. Appendices are included that replicate check-lists for site inspection and information gathering. Finally, a summary checklist provides a table for suggested further investigation of some of the issues.

An Example of Report Comprehensiveness of A Single Issue: Water Quality

Perhaps the best way to look at the comprehensiveness of the reporting is the following one "medium-risk" all the way through the process in one set of reports.

Water quality is identified as an issue in Phase I report. In Phase II, some detail is given: a water treatment plant uses a backwash system that flushes spent water treatment chemicals back in the lake, and there is some concern by band members that this could eventually contaminate the water; aluminum sulphate, polyelectrolite, soda ash, hydrochloride, and chlorine are used in treatment, and the lake that is the source of the water will contain those chemicals in its sediments. This concern is given a "medium" risk assessment, of tertiary priority. Additional comments note that:

- the filters for the settling ponds sometimes get clogged and cause fresh and treated water to mix;
- the backwash settling ponds should be tested for permeability;
- the water quality in [name] Lake should be tested for contamination and/or overall deterioration in water quality; and
- the sediments in the ponds should be tested and properly disposed of.

More specificity is given in another section of the Phase II report. A two-cell system for water treatment, presently being up-graded, should solve the mixing problem. But other problems are that "over the past few years" the lake water "has begun to stagnate," and "it is believed that this is due to lack of turnover and flow-through associated with the lake." An off-reserve farmer is reported by band members to have dammed a creek and "thus reduced water flow to the lake." Band members are said to be concerned about beaver activity in the immediate water sources and the possibilities of both water flow reduction and the introduction of parasites associated with beaver activity.

In the detailed section of the report, the new information that is offered is in the form of a photograph of the settling pond; the identification of two additional creeks that constitute the "receiving environment," and the assignment of the risk and priority category as being based on the fact that water quality is currently within Canada Water Quality guidelines, "and that the reduced water levels ... appear to be a natural occurrence due to several years of drought conditions." In the detailed section, it is noted that the private consultancy firm retained to complete Phase II recommended that a water quality monitoring/advisory board be set up, and that "a

detailed study of the ... water shed area be implemented" to determine the cause of the low water levels.

In the Phase III report, the same information is repeated, and the new information that is offered is that the settling pond is to be fenced off. Recommendations in Phase III include (1) that raw water analysis should be done on a frequent basis; (2) that sedimented sludges in the backwash pond should be periodically dredged and disposed of; and (3) there should be a review of the way in which excess water treatment chemicals are disposed of. The observation is also offered that "disposal of treated backwash waste to the lake is considered an acceptable practice" under the province's published standards. The appendices include a photocopied laboratory report of water analysis dated in June of 1995.

The point of describing this one aspect of the environmental assessment of one reserve is to provide an example of the comprehensiveness and detail of the audits. There is no need for a formal analysis of the content of the report concerning water quality because it is self evident: except for the one-page laboratory report and the photograph of the settling pond (and the maps that show where it is located in the community and relative to the water source) the reader of this paper has all the detail, all the issues, and all the information provided in the formal reports.

This is *all* the information reported about a major concern expressed by band members.

Evaluative Issues

Comprehensiveness

The question is whether or not the foregoing level of reporting is the detail and comprehensiveness required first in PWC's 1993 guidelines, and second, in terms of the requirements of the EII. A third question is whether or not this level of comprehensiveness and detail in environmental auditing meets INAC's more comprehensive responsibility for Indians and Lands Reserved for Indians.

Program Characterisitcs

Another axis for summary evaluation of the process is to look at the characteristics of effective audit programs that were cited earlier in this paper.

Objectives. The objectives of the EII were to focus on "environmental liabilities" based in federal legislation, to assess sources of potential liability, and to review off-reserve activities that affect reserve land. PWC's manual directed the study to specific potential hazards. The examples that are reviewed in this paper demonstrate that those objectives had the result of audit teams identifying very specific sites in connection with the perception of general hazards, and limiting the scope of the investigations to that circumscribed and limited number of sites.

Scope. The scope of the EII was perhaps too generally defined--surely not the "clearly defined boundaries for the program's overall scope" that Hedstrom (1994a) anticipates. That had the effect, noted above, of focusing on specific problem sites (e.g., the settling pond and treatment facility) to the exclusion of general issues (e.g.,

"the quality of water"). The scope was also limited to what O'Dell called "one-shot" investigation. The best example of "scope" in all of the foregoing, however, is to look at the level of detail and comprehensiveness that the issue of "water quality" received in the example report. There are clearly problems in terms of scope.

Coverage. It is clear from the reports that prioritizing the sites in terms of risk, which was based on adherence to legislated guidelines (i.e., "compliance" rather than "management") limited coverage to the specific sites identified in the very cursory work of Phase I.

Approach. This area relates to the objectives, and it is clear that as EII was conducted, it was a series of compliance audits, looking at deficits in compliance rather than at confirming management systems. In fact, this area identifies the most serious finding: the vacuum in management.

Resources. This relates to the personnel involved in generating report data and substance and is not the subject of this paper.

Organization. This points to the most serious deficit in the process: there is no effective management system at the reserve level.

Discussion

If there has been no effective management system in place on reserves, sufficient to provide a management context for environmental auditing, there is a similar lack at the federal level. That probably relates to financial resources. Were it to have been effective, the management system of the EII required a functional

formalized national network, communicating a consistent specific elaboration of defined responsibility and obligation, supported by legislation, with the authorization of a Ministerial mandate to provide adequate resources necessary to adequately meet needs for training, environmental auditing, inspections, follow-up, and environmental remediation response requirements.

The objectives and scope of the national initiative were so great and diffuse, there were simply not the resources committed to it, in order for it to have been more than an initial checklist of possible major environmental concerns. It is clear that the welfare of Indians and Lands Reserve for Indians is closely related to environmental concerns, so the spirit of the initiative does not go away when Phase IV has been completed on all reserves. There have to be continuing monitoring and new initiatives.

Where Do We Go Now?

A national effort must be focused on general and specific issues which require due care and attention in terms of the serious implications as generated from examination of the existing implementation principles and practices of the EII structure and process. The manner in which the EII was implemented is really unacceptable to Indian leadership and membership within Treaty 6, where the examples in this paper come from, and the content, format, structure, and summary are simply not credible as meeting environmental audit objectives. INAC's EII project proposed a top-down management approach to remedy problematic environmental conditions or situations without regard to the seriousness and required

level and depth of involvement and participation with Indian leadership and membership for acceptance and adoption. Then, ironically, its next step was to support a legislative and regulatory environment in which the bands, not INAC, were responsible for remediation and for continued environmental monitoring; INAC drew new lines of responsibility and its strategy for "devolution" in environmental monitoring was not to address the major issue of total management systems in First Nations government, and the resultant information needs, but to create a summary manual for a band to use in its own environmental monitoring.

For INAC to achieve compliance to the legal environmental legislative mandate, its constitutional responsibility, and its moral obligation to assess environmental quality, a national strategy should be articulated.

Indian leadership now requires action from INAC than is more than piece-meal "devolution." First, we need an analysis of the present decision-making processes conducted at band level for identifying, describing and defining answers in the following areas.

1. User Needs Survey and Analysis

- What environmental decisions are being made at the reserve level now?
- What are the issues; what are the conflicts?
- What information is required to make environmental decisions?
- What environmental decisions could be made and implemented using information provided by the EII Phase II, III and IV reports?

- What priorities are implicit and explicit in EII reports, and do those priorities reflect band priorities?

2. Data Assessment

- What data are now being used at the band level in addressing the issues brought up in the EII reports?
- What relevant environmental data were excluded from the reporting process, given the specificity of site-related audits in Phases II, III and IV?
- In what forms are both of these data categories (hard copy, digital, scale)?
- What are the data sources? (federal/provincial/municipal governments, industry, organizations, Bands, utilities, etc.), and what are the patterns of access to the data sources?
- Is the information being used suitable for environmental management decision-making?
- What types of other data are essential to the environmental management decision-making process (large scale, physical, ecological, land-use)?
- What are the priorities for this new data acquisition, implementation, maintenance (sequence, training, costs)?

3. Management Systems

What kind of management systems must be implemented at the band level in order for effective environmental monitoring to take place, in the context of a total management system for a band?

Second, the processes involved in the EII Phases I, II, III and IV should be reviewed, to find areas of exclusion of concern. There need to be both a more general and a more specific addressing of environmental concerns on reserves, and to the ongoing need for environmental monitoring. The more general requirements relate to history and are not as "site-specific" as the reports of the EII. For example, most Indian reserves exist in a state of poverty, with many inhabitants dwelling in an infrastructure built with sub-standard materials. There is every to reason to suspect that there are unknown dangers from past and present development activities, especially when the Reserves have inhabitation histories older than the Provinces, or the Nation. The site-specific focus of the EII neglects these initial general questions.

INAC's EII project design, development, implementation and evaluation neglected numerous dynamic natural considerations within an area of multiple human activities, translating into multiple sources and multiple levels of contamination, spreading into the air and water, onto the land affecting the soils, vegetation and the existing food chain patterns and cycles, which threaten the life and survival of life in it's many forms within any particular geographic location. We need to look at much larger dynamic systems than the site-specific inventory of the EII.

We need to create management systems that ensure not just compliance to objectives established in federal legislation respecting the environment, but that will provide a context for the following processes, to take place within the framework of INAC's obligations to Indians and Lands Reserved for Indians. The management systems must be established on principles that will ensure the following:

(1) validity, i.e., that guidelines be established to direct information gathering about the environment in concrete, specific and measurable terms that accurately identify, describe and define the "State of Indians and Lands Reserved for Indians";

(2) that the best interest of Reserves are considered and that Reserve needs are met in any such assessments;

(3) that there is enough time, enough resources and enough money to prepare, develop, generate, analyze, present and deliver responses to the specific issues raised in the EII project;

(4) that in any change, such as the new requirement for band responsibility in remediation, adequate and appropriate legal, political, cultural, technical, informational, infrastructural and financial expertise is (a) identifiable, and (b) available, to provide support, consistency and comprehensiveness.

(5) that effective working relationships, not a context of conflict and litigation, exist between bands and INAC (regionally and Nationally) as a result of the inventory;

(6) that INAC's constitutional responsibilities and obligations, not just its responsibilities under the new legislation, are addressed in the context of remediation and follow up in EII objectives, and that INAC implementation of EII complies with all federal legislation, not only with acts that deal with the environment;

(7) that measurements, research practices, and standards are consistent with those established in the international environmental assessment community of expertise, and with a band's unique assessment of "quality";

(8) that environmental assessments such as EII include *every structure* on the Reserve, managed under all band portfolios, and that the same standards for environmental assessment be applied to band property as to structures and buildings under federal jurisdiction;

(9) that consistent formats and procedures be followed, so that base-line data can be generated and recorded, relative to on-going needs and requirements;

(10) that sufficient base-line data be provided relative to all on-going funding arrangements that bands have with INAC, so that band-level analysis of alternatives in long- and short-term action plans can be discussed.

Conclusion

INAC's EII project content, structure, and process resulted in conclusions that were determined during an unsubstantial and cursory first phase. The substantive findings of the subsequent phases were thus preconceived and predetermined in the planning and completion of Phase I; that process minimized other possible concerns or issues that might pose an environmental threat or hazard. This boiler plate approach has serious cost (soft and hard) and legal implications to the "state of Indians and Lands Reserved for Indians."

Any exercise to undertake an assessment or inventory in any context or application on any Indian Reserve requires the approval of the Indian leadership and membership. In general the protocol is "contact, discussion, decision and action." Though consultation may have taken place at some level before the EII process began,

the local and band effect was one of top-down decision-making. The level of seriousness of the issues involved should have been based on a process that would have generated local understanding, so that Band membership could have been more knowledgeable about the purpose, intent and application of the project. The process thus had substantial limitations.

In no way was the EII a comprehensive audit as it relates to the concerns and issues of the Indian people and Indian lands to which it is intended. The project does not form a substantive basis for remediation of environmental hazards. It may provide important local information about very specific and visible hazards, but the substantive work on the environmental issues facing Lands Reserved for Indians has yet to be done.

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CHAPTER IV

Conclusions

Issues of Accountability Demonstrate The Need for Information Systems

The Department of Indian Affairs has been called to account by the Auditor General for a failure in both fiscal and ethical accountability in the department's meeting of its constitutional and legislative responsibilities for Indians and Lands Reserved for Indians. It is an example of the way in which an articulated policy, such as "devolution" of control in self-government, can be used as a smoke screen.

A major problem in fiscal accountability has been that there is no effective information management system in place to handle a variety of information needs upon which policy must be based. When faced with another specific legislated requirement to complete environmental audits on reserves, the department initiated a massive undertaking but one in which it dictated the terms of completion, the basis for evaluation, the scope of the inquiry, the salience of the findings, and the priorities for remediation. Only in the latter area--the responsibility for cleaning up messes on land-- did the idea of "devolution" have any currency.

In a broad sense, the two papers presented in this work indicate that in its exercise to look after the concerns of Indians and Lands Reserved for Indians, the department continues to operationalize a federal policy of containment and control which is inimical to the exercise of self-government and the maintenance of community integrity.

Both papers point out a compelling need for a system for organizing and maintaining information about Indians and Lands Reserved for Indians, and in both papers there is the premise that the control of those information systems should be vested in the Indian communities themselves.

Some other summary observations that come from the second paper are included here.

1. INAC has poor records of previous activities taking place on or off Reserve, that affect Reserve land, that have the potential for environmental hazard or which might contaminate the geologic, fauna, hydrologic and atmospheric components of the ecosystem where the Reserve is geographically located. This includes a lack of information about potential contamination in food chain processes within the environment integrated with the traditional activities of hunting, gathering, fishing and trapping. Until around 1990 INAC did not have an effective system for monitoring environmental hazards on Indian land.
2. The process INAC set up in its Environmental Issues Inventory appeared to be based on the premise that going to the land or the people on it is less important in the definition of possible hazards than library data searches or records review. Broad-based community involvement in defining possible hazards was not an initial step in the process.
3. Such an approach to assessment privileges bureaucrats who do not live on the land, and marginalizes the land on which Indians live.

4. INAC's EII model represents an approach that predetermines categories of hazard: the audits in the EII were completed primarily of sites identified in a first step (Phase I) that was superficial and cursory.

5. As with all races, Indians do not support the conclusion that it is possible for modern industrial populations to live on the land without having an impact. An Environmental Issues Inventory should be more comprehensive than a catalogue of observed hazards.

6. There is a major medical or health component to environmental research, that is conspicuously neglected in the EII process. This has not been addressed.

A Case For Aboriginally-Controlled Information Systems

This work stems from my concern as a member of one of the Cree First Nations to see development of resources and communities. My work in that area has convinced me that resource development has to be based on the initial development of two basic resources: information resources and human resources.

Aboriginal communities are having a lot of difficulty in managing their multi-resource base. The development agreements in which we are involved are piece-meal. There is no system for the development of a foundation, or a framework, or a structure or process, that allows us to look at individual development initiatives in the context of an overall developmental strategy, and so we do not realize the benefit from the use of multi-resources that we would if we could base developmental strategies on reliable information.

As a result, in the absence of a system in place to account for the resources, our communities have remained isolated. The talk in the communities is that they would like to see development, they would like to see growth, they would like to see prosperity within our communities. Band members want to see to the survival of our membership, and to see our membership grow, and they would like to see that growth in terms that are at least equivalent to the development of the non-aboriginal sectors of Canadian society. This has not been seen in our communities.

One basic reason for the lack of ability to make informed decisions about development is that there is no reliable information system in place in our communities. Indian people have access to many resources but one of the resources we lack is Information itself. A first priority in self-government has to be to assess what information we have right now, evaluating the validity of what we have, finding information that we need, holding on to community information, finding out all the things that are wrong with the existing information-gathering and organizing system. and creating a system for the creation and organization of existing and new information in way that is meaningful, coherent, and dynamically-accessible and manipulable.

Within the boundaries of reserves, there are resources both above and below the surface. A major area of resource is that area called "human resources," and economic and social activities that use human resources, such as health services, education, agriculture, retail services, contracting, manufacturing and policing. Research and record-keeping has provided a wealth of information in those areas, and

those bits of information are readily available to the different external government agencies with which Indian people are required to deal. All those agencies have their own different criteria for the terms of reporting information to them, in connection with their common requirement for financial accountability. That means that the terms in which information is gathered and organized are presently set by external agencies. That means we have, by default, a haphazard and ad hoc information system that has no common basis, and surely not a foundation that is built on the principle of the interest of the band and its members. At the band level there is nothing in place to override this ad hoc, imposed system. We have information systems that allow us only to represent ourselves to others in terms they dictate. We need to be able to say "This is our community." A basic example is that agencies such as the federal government come to us to negotiate some action or initiative based on population figures. They have population figures that do not match the band's population figures. Which set of figures is accurate? Which information is more nearly authoritative?

The issue of authoritative and reliable information is important because we need to be able to discount wrong or misleading information. Our communities are totally misunderstood; proper data gathering is not done in our communities. For the most part, external "others" gather information about us. The implications at the community level are clear. Governments have mis-information based on misunderstanding; Indian government and organizations and regional councils are left without information upon which to build policy for resource management and communities are being misguided and mislead.

Community allocations for different programs and services are compromised by inaccurate information. Inaccurate information has the consequence that Native leadership is not made accountable to their own membership. Some of the consequences of this lack of community accountability is sub-standard housing, poor services or lack of services without any accountability for these conditions on the part of leadership.

The present system is far behind in meeting the communities' needs, or even in having an accurate assessment of what kind of information we need. In other words, we do not even know what we need to know.

When we have an idea of the kinds of the things we need to know, the areas in which we lack information, and the way we should organize that information, we can talk about accountability, management, control, and planning. Communities could gain the ability to address strategies for prosperity and development in practical and reasonable terms. Right now these things are very far away.

It is a real basic resource issue; we need to do our own research to meet our own needs.

The journey that all Aboriginal communities have to make begins by acquiring the skills and abilities to develop infrastructure for ongoing management of information. When I began to study resource development in First Nations communities, "information" and "human resources" had much lower priority for me than oil and gas and financial resources. It became clear to me, however, that if we do

not examine first our situation with respect to human resources and information we will lose treaty rights, even in the face of government devolution.

We do not have the information base to protect ourselves and our rights. Without an information resource system in our communities we are not able to identify what it is that we have to work with; we have no inventory of resources that will allow us to develop business plans and comprehensive community plans, much less to engage in discussions about nation building or self-government, whatever those terms might mean in our communities. Without that information we cannot initiate successful projects, nor know the areas in which we must train our membership: we do not even know the specifics of what we need. The result is an inability to address important continuing issues such as unemployment, or look to the reasons for the lack of partnership and co-management relationships with the surrounding regions.

One of the things that is critical in Aboriginal cultural survival is information about current activities in our communities, including research activities. There has to be a way for Aboriginal communities to have access to information that is not readily and publicly available, gathered through outside agencies related to resources. Industry, government, and private researchers complete research about reserve land and reserve resources and often do not share it. This information is valuable not just in economic terms but in terms of the cohesion of the community and survival.

A very critical area of information is our own traditional information. Others now attempt to record it on our behalf. That speaks as well to the issue of ownership of information, and the terms in which our own traditions are recorded and

represented. It invokes our own tradition with respect to authority: who has authority to represent cultural information as accurate?

Without an information system there is no integration of information that is available in such a variety of forms that no single storage or data-manipulation system can contain it: maps, financial information, demographic information, scientific and technical information, and cultural information. Adequate information systems integrate those orders of information, and without that integration there is no vocabulary or medium that allows people who work in development and management areas, for the band, to record information that is accessible to other managers and to membership. We have to develop such systems for practical reasons: the leadership has to maintain a recording structure for accountability to government for funds received for treaty rights and treaty obligations. Beyond the everyday management of existing information, we need such systems if we are to plan.

Visualize a department of information resource services in each Aboriginal community, with its own library and its own computerized systems, integrating all the different portfolio holders and all the different programs and services, all connected to the same data base to provide information. I suggest that the sequence of steps for setting up the system would be quite different in a First Nations community than in other communities. People with skills in information management would have to be involved, but their role would be that of creative technicians. The basic process, however, in assessment of the total scope of information needs in an Indian community would have to be a fundamental process of nation building. The entire

community would have to be involved by offering their own questions about basic needs in relation to the way in which their own, everyday, lives are related to basic Treaty rights.